

To: Tyson, MaryPat[tyson.marypat@epa.gov]
From: McGrath, Jesse
Sent: Thur 11/6/2014 7:40:08 PM
Subject: FW: Precision and Bias Checks

not responsive

From: Papp, Michael
Sent: Thursday, November 06, 2014 12:07 PM
To: McGrath, Jesse
Subject: RE: Precision and Bias Checks

Ex. 5 - Deliberative Process

These validation templates were developed by monitoring organizations for monitoring organization and since 2008 they identified critical criteria . There was consensus agreement with these.

not responsive

not responsive

Below is an example of what we are seeing. this is from VA for ozone where the 1-point QC is 7%. The first time they got a -10.4

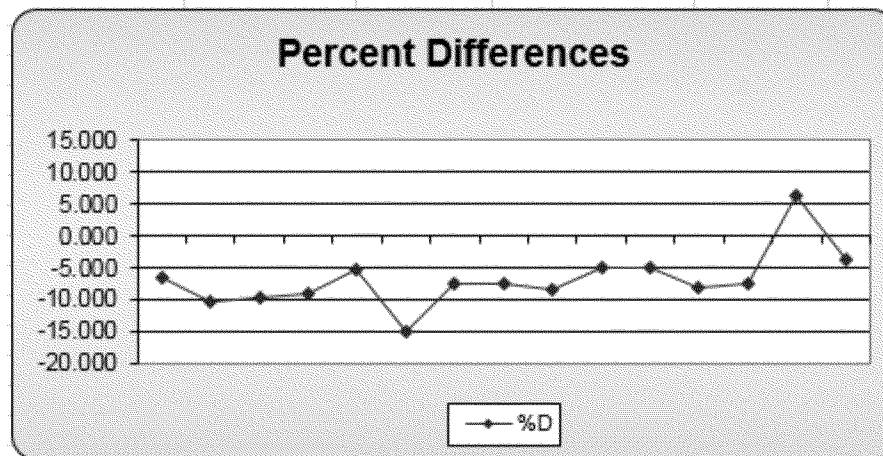
Ex. 5 - Deliberative Process

not responsive

seeing what's occurring below.

O₃ Assessments

Site ID: {Enter Site ID}		Pollutant type: O ₃						CV _{ub} (%)		Bias
Meas Val (Y)	Audit Val (X)	d (Eqn. 1)	25th Percentile	d ²	d	d ²				
85.1	91.1	-6.586	-8.750	43.378	6.586	43.378				
81.6	91.1	-10.428	75th Percentile	108.745	10.428	108.745	n	S _d	S _{d2}	
83.4	92.4	-9.740	-5.262	94.873	9.740	94.873	15	4.557	52.464	
84	92.4	-9.091		82.645	9.091	82.645	n-1	Σd	Σd ²	
87.4	92.4	-5.411		29.282	5.411	29.282	14	-103.151	1000.072	
78.4	92.4	-15.152	Outlier	229.568	15.152	229.568				
85.4	92.4	-7.576		57.392	7.576	57.392				Bias
85.4	92.4	-7.576		57.392	7.576	57.392				
80.6	88	-8.409		70.713	8.409	70.713	CV (%) (Eqn 2)			Sign
83.5	88	-5.114		26.149	5.114	26.149	6.11			-8.9
83.5	88	-5.114		26.149	5.114	26.149	Upper Probability Limit			Low
80.8	88	-8.182		66.942	8.182	66.942	2.06			
81.5	88	-7.386		54.558	7.386	54.558				
93.5	88	6.250	Outlier	39.063	6.250	39.063				
84.8	88	-3.636		13.223	3.636	13.223				



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From: McGrath, Jesse
Sent: Thursday, November 06, 2014 12:44 PM
To: Papp, Michael

Ex. 5 - Deliberative Process

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Ex. 5 - Deliberative Process

From: Papp, Michael
Sent: Thursday, November 06, 2014 11:30 AM
To: McGrath, Jesse
Subject: RE: Precision and Bias Checks

That's what the guidance says

From: McGrath, Jesse

Sent: Thursday, November 06, 2014 11:57 AM
To: Papp, Michael
Subject: RE: Precision and Bias Checks

Are you interpreting that to mean that in the absence of any other cause the precision point alone is justification for invalidating the data?

From: Papp, Michael
Sent: Thursday, November 06, 2014 5:53 AM
To: McGrath, Jesse
Subject: Precision and Bias Checks

From the validation template

*Observations that do not meet each and every criterion on the **Critical Criteria Table** should be invalidated unless there are compelling reason and justification for not doing so. The sample or group of samples for which one or more of these criteria are not met is invalid until proven otherwise. The cause of not operating in the acceptable range for each of the violated criteria must be investigated and minimized to reduce the likelihood that additional samples will be invalidated.*

Any check listed as critical should be invalidated back to the last acceptable check. We may allow one check that just over the acceptance limit in but that's up to you.

The requirements are pretty clear. Some have abused this and now are paying the price.

Now there are other precision check (Like PM2.5 collocation) that represent a grander scale of precision for the PQAO that is not critical but operational. In this case you have more leeway to trouble shoot to determine issues.

A failure of an NPAP audit by itself would not be cause for invalidation but further follow-up.
Hope this helps.

Mike Papp

EPA

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